

SYSTEM, DEVICE, AND METHOD FOR INTERWORKING BETWEEN A  
BROADBAND SS7 NETWORK AND AN INTERNET PROTOCOL NETWORK  
TO PROVIDE TRANSPORT OF CONNECTION ORIENTED INFORMATION

ABSTRACT OF THE DISCLOSURE

A wireless communication system includes a radio  
node controller in an SS7 network that generates SS7  
formatted information for transport in an Asynchronous  
Transfer Mode Permanent Virtual Circuit in response to  
communications with a mobile unit. A signaling gateway  
receives the SS7 formatted information on the  
Asynchronous Transfer Mode Permanent Virtual Circuit.  
The signaling gateway translates the SS7 formatted  
information into Internet Protocol information and maps  
the Asynchronous Transfer Mode Permanent Virtual Circuit  
to stream control transmission protocol endpoint and  
stream. A mobile switching center in an Internet  
Protocol network receives the Internet Protocol formatted  
information on the Stream Control Transmission Protocol  
stream and performs further processing thereof. By  
associating Asynchronous Transfer Mode Permanent Virtual  
Circuits with Stream Control Transmission Protocol  
endpoints and streams, the signaling gateway need not  
maintain connection states in order to allow a back up  
signaling gateway to continue passing information between  
the radio node controller and the mobile switching center  
in the event of a failure in the signaling gateway.